

Correlation Between Screening for Obstructive Sleep Apnea Using a Portable Device Versus Polysomnography Testing in a Commercial Driving Population

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OBJECTIVE: To compare the accuracy of portable monitoring for obstructive sleep apnea (OSA) with polysomnography (PSG) in commercial drivers.

METHODS: A consecutive case series of drivers were screened for OSA using recent validated consensus conference criteria at a single occupational medicine clinic; those screening positive were tested with a portable OSA screening device while awaiting PSG.

RESULTS: Three hundred forty-six drivers were screened and 34 completed PSG and portable monitoring. Comparing the portable device to PSG at a definition of OSA as an apnea hypopnea index (AHI) <15 , positive predictive value is 0.64 with a 0.87 negative predictive value. Positive likelihood ratio is 4.20. Linear regression model found statistically significant relationship ($P < 0.0004$) between the portable device and PSG AHI values.

CONCLUSION: Although not perfect, portable monitoring may be useful in further stratifying risk in drivers who have a high probability of having OSA.